

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A crystalline gatifloxacin sesquihydrate Form H1, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 9.2, 10.5, 12.9, 18.4, 18.9, 19.9, 21.2, 21.7 and 24.0 degrees.
2. (currently amended) A The crystalline gatifloxacin sesquihydrate Form H1 as defined in claim 1, further characterized by an x-ray powder diffraction pattern as in figure 1.
3. (currently amended) A The process for preparation of gatifloxacin sesquihydrate Form H1 as defined in claim 1, which comprises crystallizing gatifloxacin sesquihydrate Form H1 from a solution comprising gatifloxacin, a chlorinated solvent and water;
wherein the chlorinated solvent is selected from the group consisting of ethylene dichloride, chloroform, carbon tetrachloride and methylene dichloride.
4. (currently amended) A The process according to claim 3, wherein the chlorinated solvent is ethylene dichloride.
5. (currently amended) A The process according to claim 3, wherein gatifloxacin is a hydrate of gatifloxacin.
6. (currently amended) A The crystalline gatifloxacin Form H2, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 5.9, 7.8, 13.7, 14.1, 15.9, 19.7 and 21.1 degrees.
7. (currently amended) A The crystalline gatifloxacin Form H2 as defined in claim 6, further characterized by an x-ray powder diffraction pattern as in figure 2.

8. (currently amended) A The process for preparation of gatifloxacin Form H2 as defined in claim 6, which comprises the steps of:

- a) mixing gatifloxacin and an ester solvent;
- b) heating to about 70⁰C to 80⁰C;
- c) cooling rapidly to about 20⁰C to 25⁰C; and
- d) filtering the solid separated;

wherein the ester solvent is selected from the group consisting of ethyl acetate, methyl acetate, isopropyl acetate, tert-butyl acetate, ethyl formate and methyl formate.

9. (currently amended) A The process according to claim 8, wherein the gatifloxacin used is gatifloxacin sesquihydrate Form H1.

10. (currently amended) A The process according to claim 8, wherein the ester solvent is ethyl acetate.

11. (currently amended) A The process according to claim 8, wherein the contents are cooled to about 20⁰C to 25⁰C in 1 hour.

12. (currently amended) A The process according to claim 3, wherein gatifloxacin used is gatifloxacin Form H2 of claim 6.

13. (original) A crystalline gatifloxacin Form H3, characterized by an x-ray powder diffraction pattern having peaks expressed as 2 θ at about 7.8, 10.2, 12.9, 13.6, 14.1, 19.7, 20.5, 23.8, 25.9 and 28.6 degrees.

14. (currently amended) A The crystalline gatifloxacin Form H3 as defined in claim 13, further characterized by an x-ray powder diffraction pattern as in figure 3.

15. (currently amended) A The process for preparation of gatifloxacin Form H3 as defined in claim 13, which comprises the steps of:

- a) mixing gatifloxacin and an ester solvent;

- b) heating to about 70⁰C to 80⁰C;
- c) cooling slowly to about 20⁰C to 25⁰C; and
- d) filtering the solid separated;

wherein the ester solvent is selected from the group consisting of ethyl acetate, methyl acetate, isopropyl acetate, tert-butyl acetate, ethyl formate and methyl formate.

16. (currently amended) ~~15.~~ ~~A~~ The process according to claim 15, wherein gatifloxacin used is hydrate of gatifloxacin.

17. (currently amended) ~~16.~~ ~~A~~ The process according to claim 15, wherein gatifloxacin used is gatifloxacin Form H2.

18. (currently amended) ~~17.~~ ~~A~~ The process according to claim 15, wherein the contents are cooled to about 20⁰C to 25⁰C in 4 to 6 hours.

19. (currently amended) ~~18.~~ ~~A~~ The process according to claim 3, wherein gatifloxacin used is gatifloxacin Form H3 of claim 13.

20. (currently amended) ~~19.~~ ~~A~~ The process according to claim 8, wherein gatifloxacin used is gatifloxacin Form H3 of claim 13.

21. (currently amended) ~~20~~ A crystalline gatifloxacin sesquihydrate Form H4, characterized by an x-ray powder diffraction pattern having peaks expressed as 2 θ at about 6.3, 7.8, 9.2, 9.8, 10.6, 12.6, 12.9, 13.5, 14.4, 18.4, 19.8, 20.0, 20.9, 24.4, 25.4, 25.9 and 27.9 degrees.

22. (currently amended) ~~21.~~ ~~A~~ The crystalline gatifloxacin sesquihydrate Form H4 as defined in claim ~~20~~ 21, further characterized by an x-ray powder diffraction pattern as in figure 4.

23. (currently amended) ~~22.~~A The process for preparation of gatifloxacin sesquihydrate Form H4 as defined in claim ~~20~~ 21, which comprises crystallizing gatifloxacin sesquihydrate Form H4 from the solution comprising gatifloxacin, a suitable quantity of 1,4-dioxane and water; wherein the quantity of 1,4-dioxane is above 20 ml per gm of gatifloxacin.

24. (currently amended) ~~23.~~A The process according to claim ~~22~~ 23, wherein the quantity of 1,4-dioxane is 20 to 40 ml per gm of gatifloxacin.

25. (currently amended) ~~24.~~A The process according to claim ~~22~~ 23, wherein the gatifloxacin is a hydrate of gatifloxacin.

26. (currently amended) A crystalline gatifloxacin sesquihydrate Form H5, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 8.2, 13.5, 13.9, 16.5, 17.0, 17.9, 19.9, 21.0, 23.3 and 24.8 degrees.

27. (currently amended) ~~26.~~A The crystalline gatifloxacin sesquihydrate Form H5 as defined in claim ~~25~~ 26 further characterized by an x-ray powder diffraction pattern as in figure 5.

28. (currently amended) ~~27.~~A The process for preparation of gatifloxacin sesquihydrate Form H5 as defined in claim ~~25~~ 26, which comprises crystallizing gatifloxacin sesquihydrate Form H5 from the solution comprising gatifloxacin, a suitable quantity of 1,4-dioxane and water; wherein the quantity of 1,4-dioxane is equal to or below 20 ml per gm of gatifloxacin.

29. (currently amended) ~~28.~~A The process according to claim ~~27~~ 28, wherein the quantity of 1,4-dioxane is 8 to 15 ml per gm of gatifloxacin.

30. (currently amended) ~~29. A~~ The process according to claim ~~27~~ 28, wherein the gatifloxacin is a hydrate of gatifloxacin.

31. (currently amended) ~~30. A~~ The pharmaceutical composition comprising a crystalline form of gatifloxacin and a pharmaceutically acceptable carrier; wherein the crystalline form is selected from the group consisting of Form H1 of claim 1, Form H2 of claim 6, Form H3 of claim 13, Form H4 of claim ~~20~~ 21 and Form H5 of claim ~~25~~ 26.

32. (currently amended) ~~31. A~~ The pharmaceutical composition of claim ~~30~~ 31 wherein the crystalline form is gatifloxacin sesquihydrate Form H1 of claim 1.

33. (currently amended) ~~32. A~~ The pharmaceutical composition as defined in claim ~~30~~ 31, wherein the crystalline form is gatifloxacin Form H2 of claim 6.

34. (currently amended) ~~33. A~~ The pharmaceutical composition as defined in claim ~~30~~ 31, wherein the crystalline form is gatifloxacin Form H3 of claim 13.

35. (currently amended) ~~34. A~~ The pharmaceutical composition as defined in claim ~~30~~ 31 wherein the crystalline form is gatifloxacin sesquihydrate Form H4 of claim ~~20~~ 21.

36. (currently amended) ~~35. A~~ The pharmaceutical composition as defined in claim 30, wherein the crystalline form is gatifloxacin sesquihydrate Form H5 of claim ~~25~~ 26.